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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,545	03/16/2001	Juergen Kockmann	P99,2690	2480
29177	7590	07/12/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC			HYUN, SOON D	
P. O. BOX 1135			ART UNIT	
CHICAGO, IL 60690-1135			PAPER NUMBER	
			2663	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,545

Applicant(s)

KOCKMANN ET AL.

Examiner

Soon D. Hyun

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19 is/are allowed.
- 6) ☒ Claim(s) 11-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on 04/15/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohani et al (U.S. Patent No. 5,390,166) in view of Tomioca (U.S. Patent No. 5,452,115).

Regarding claim 11, Rohani et al (Rohani) discloses a method for digital radio transmission of data between a fixed station (14) and at least one mobile station (17) at one of a number of carrier frequencies, the method comprising the steps of:

transmitting data in a number of time slots (41 of each frame in FIG. 4) using a time-division multiplex method (col. 2, lines 4-9), the data being transmitted in active time slots (41 of each frame) each of which is followed by an inactive time slot (42) in which no data is transmitted and the inactive time slot is used for switching frequencies (col. 4, lines 42-44); and

changing from a first carrier frequency to a second carrier frequency after a predetermined time period having an order of magnitude of one time slot, wherein change from the first carrier frequency to the second carrier frequency is performed during the inactive time slot by a RF module (Frequency Synthesizer 21).

However, Rohani differs from the present invention in that duration of the inactive time slot (42) is same as other time slot even if full duration of the time slot is not required for switching the frequencies (col. 4. lines 13-17), while the present application teaches the inactive time slot has a time duration shorter than a time duration of an active time slot.

Tomioka teaches a time slot kept for broadcast/multicast communications be set shorter in duration than other time slots (col. 19, lines 56-62) to increase channel efficiency when a portion of the full time slot duration of a normal time slot is necessary (col. 19, lines 44-55).

Those of skill in the art would have been motivated by Tomioka to use a shorter duration time slot when necessary.

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a shorter duration time slot into Rohani's inactive time slot to increase channel efficiency.

Regarding claim 12, refer to the discussion for claim 11. However, Rohani + Tomioka does not explicitly teach that a time duration of the inactive time slot is half of the active time slot. With reference to the col. 4, lines 13-18, slot 42 and slot 43 could be combined in one time slot. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate an inactive time slot having half-time duration as claimed without deviating from the broad principle and spirit of the present invention of Rohani.

Regarding claim 13, Rohani further discloses that the data is transmitted using a time-division multiplex duplex method, see FIG. 4

Regarding claim 15, Rohani does not explicitly teach that the data is transmitted in a 2.4 GHz band. It would have been obvious to one having ordinary skill in the art to incorporate the method of Rohani into 2.4 GHz band to use for ISM band without deviating from the broad principle and spirit of the present invention of Rohani.

Allowable Subject Matter

5. Claims 16-19 are allowed.
6. Claims 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is an examiner's statement of reasons for allowance: the record of prior art fails to teach the fixed station and the mobile station changing the carrier frequencies during the inactive time slot in combination with other elements as recited in claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2663

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hyun
07/07/2005


RICKY NGO
PRIMARY EXAMINER
7/11/05